



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

C3-4-4K
Job Sheet 173601



Part No: C3-4-4K

Job Qty: 10 ea

Part Name: Load Beam



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 3/5/18

Job Tracking No:

Due Date: 3/16/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG C3-4-4A/C3-4-4KA Rev 10 IPP Rev A 18.03.02 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	10 Ea		3/15/18	0.00	0.00	Start Up Waterjet2		OK 18/04/04
100	Waterjet	10 pcs		3/15/18	0.08	1.67	Waterjet 2 OMAX		OK 18/04/04
120	CNC Vertical Machining	10 pcs		3/16/18	2.00	5.00	MORIN V5000		OK 18/05/29
130	QC	10 pcs		3/16/18	0.00	0.00	QC2 Machining-5		11 MAY 29 2018
140	QC	10 pcs		3/16/18	0.00	0.00	QC2 Machining-5		CT18-5-29
150	Outsource	10 pcs		3/16/18	0.00	0.00	Outsource1		CT18-6-11
152	Outsource	10 pcs		3/16/18	0.00	0.00	Outsource15		CT18-6-11
160	Packaging	10 pcs		3/16/18	0.00	0.00	Packaging2		CT18-6-11
170	QC	10 pcs		3/16/18	0.00	0.00	QC6		38
180	Packaging	10 pcs		3/16/18	0.00	0.00	Packaging3-2		2-89
190	QC21-SA	10 Ea		3/16/18	0.00	0.00	QC21		21 JUL 25 2018

Part Op 100 - 1-Cut C45-4-4 blank (CANAM FOLDER) Dwg Rev: 10 Prog Rev: 10 2-Deburr if necessary

Descriptions: 120 - 1-Machine as per folio FB FOLIO REV: 10034649 DWG REV: 2-Deburr ***MACHINE

ENGRAVE AS PER DWG***AH

150 - 1-Issue P/O to Metcore; P/O 010035 RC 53-56 2-Bead blast 3- Certificate of Conformity is required

152 - Issue P/O to Groupe Altech; P/O 010145 -Nickel plate, QQ-N-290, Class 2, Grade C -Nickel Plate .0009-

.0011-- Certificate of Conformity is required-

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
MT-4140-S-1.000X10.000	AISI 4140 Steel Sheet/Plate	.2500 ft (.025 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	MT-4140-S-1.000X10.000	0	0	0

Part Specifications

Specifications could not be found.

WORK ORDER NON-CONFORMANCE / UPDATE



Date: _____
 Date: _____

Work Order update only

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermofforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐		Engineering ☐ Quality ☐ Other ☐	
Date: _____		Step #: _____		QTY Effective: _____		MRB (QS1042) Approval	
Description Work Order Deviation							
Completed By							
Lead hand / Supervisor Approval Verification							
QC / QA Coordinator Approval							

Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LODA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐		No Re-verfi ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		Date: 04/08/18	
DART Aerospace Container No: S059062 Part: C3-4-4K Job No: 173601 Serial No/Batch: S059062 Revision: 10 Inspector:		Date: 04/08/18		OTHER:	
Marks/Chatter		Counter sink Cut Too Short Instructions Incomplete/Unclear Drill Holes		Weld Wrong Stock Pulled Out of Sequence Off-set Mislabeled Fit/Function Misaligned/off center	
Positioned Wrong Outside Dimensions Over/Under tolerance Part Incorrect Part Lost/Missing Part Moved Drawing Finish Misread Turning Sequence					

DART Aerospace Ltd.
 1270 Aberdeen Street
 Hawkesbury, ON K6A 1K7
 CANADA
 TEL.: 1 813 632-5200
 Email: sales@dartaero.com
 www.dartaerospace.com



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO039649

Supplier: ARR002-VU
Arrow Tech Machine Works
29751 E. Enid Road,
Unit C
Eugene, OR 97402 USA
Phone: 541-780-6938
Fax: 458-215-4938

PO No: PO039649
PO Date: 4/19/18
Due Date: 5/4/18
**Purchase Order
Revision:**
Revision Date:
Ship-To Contact: Lacelle, LindaPhone:
llacelle@dartaero.com

E-MAILED
APR 24 2018

Ship To:

Pynt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	172772	C45-4-4K	machine per drwg	Firmed	5/4/18	8 pcs	80 pcs	8 pcs	\$199.93/pcs	\$1,599.44
2	172771	C45-4-4	machine per drwg	Firmed	5/4/18	4 pcs	0 pcs	4 pcs	\$223.93/pcs	\$895.72
3	174417	C45-4-4	machine per drwg	Firmed	5/4/18	12 pcs	0 pcs	12 pcs	\$223.93/pcs	\$2,687.16
4	173601	C3-4-4K	machine per drwg	Firmed	5/4/18	18 pcs	0 pcs	18 pcs	\$188.38/pcs	\$3,390.84
5	172188	C45-4-4K	machine per drwg	Firmed	5/4/18	8 pcs	0 pcs	8 pcs	\$199.93/pcs	\$1,599.44
Grand Total:										\$10,172.60

Order Notes

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 4/23/18 3:33 PM dart.Lussier.Patrick



ARROW TECH MACHINE WORKS

Certificate of Conformance

Your Purchase Order No:039649

Dated: 5/28/2018

Our Order / Job No: AWT039649-3K

Order Qty: 18

Part Name: Load Beam

Part Number: C3-4-4K

Lot Size:S059062 Ship Date: 5/24/2018

We certify that these parts shipped to you are of domestic or international manufacture and conform to all requirements of the Purchase Order. These parts have been manufactured and inspected in accordance with all required specifications, instructions and drawings. Any applicable specifications are listed below:

Drawing Number: C3-4-4A/C3-4-4KA

Rev:10

Material Size and Type: 4140 STEEL

Material Specifications: STEEL: ASTM A108, ASTM A29

Heat Treatment: N/A

Plating/Finish:N/A

Mercury Contamination: The material used to process this order has not come in contact with mercury or mercury bearing instruments.

Date: 05/28/18

Signed: _____

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MAY 29 2018

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PHGE Machine Works LLC dba Arrow Tech Machine Works
29751 E. Enid Rd. Unit C Eugene, Oregon 97402
Main: (541) 780-6938 | Fax: (458) 215-4938
www.atechmachineworks.com



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO040035**

Supplier: ATL002-VC
Atlantic Heat Treat 2001
401 Frankcom
Ajax
ON
L1S R14 Canada
Phone: 866 257 6395

PO No: PO040035
PO Date: 5/29/18
Due Date: 6/9/18
Purchase Order Revision:
Revision Date:
Ship-To Contact: Tsimiklis, Chrisoula
Phone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	172772	C45-4-4K	C45 Load Beam Keeperless 1--Issue P/O to Atlantic Heat Treat; P/O _____ RC 53-56 2-Bead blast 3- Certificate of Conformity is required MAT'L 4140	Firmed	6/9/18	8 pcs	0 pcs ✓ 8x	8 pcs	\$10.64125/pcs AT 18/06/11	\$85.13
2	174417	C45-4-4	Load Beam 1--Issue P/O to Atlantic Heat Treat; P/O _____ RC 53-56 2-Bead blast 3- Certificate of Conformity is required MAT'L 4140	Firmed	6/9/18	12 pcs	0 pcs ✓ 12x	12 pcs	\$9.8258333/pcs AT 18/06/11	\$117.91
3	173601	C3-4-4K	Load Beam 1--Issue P/O to Atlantic Heat Treat; P/O _____ RC 53-56 2-Bead blast 3- Certificate of Conformity is required	Firmed	6/9/18	18 pcs	0 pcs ✓ 18x	18 pcs	\$5.1433/pcs AT 18/06/11	\$92.58

Certification

Date: 06/05/2018

Entry Date: 06/01/2018

Page: 1 of 1

To:DART AEROSPACE LTD.
1270 ABERDEEN ST

Purchase Order No.: po040035

Packing List No.:

HAWKESBURY ON K6A 1K7

Material: 4140

We are pleased to provide you with the following Certificate of Compliance.

Quantity	Part Number / Part Name / Part Description	Pounds
18	18 pcs material 4140 annealing and heated to 53-56rc sand blast c of c prt# c3-4-4k Job# 173601	42

Insp. Type	Scale	Minimum	Maximum	Number	Other
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Customer Requirements:

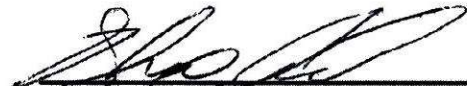
Harden rockwell

Results:

Harden ROCKWE 53. 56. 54.5 TESTED AS PER SAMPLING PLAN

HARDEN TO 54.5 RC AS PER CUSTOMER REQUEST

STATEMENT OF LIMITED LIABILITY (PLEASE READ CAREFULLY). ALL WORK IS ACCEPTED SUBJECT TO THE FOLLOWING CONDITIONS. It is recognized that even after employing all the scientific methods known to us, hazards still remain in metal treating. THEREFORE, OUR LIABILITY SHALL NOT EXCEED TWICE THE AMOUNT OF OUR CHARGES FOR THE WORK DONE ON ANY MATERIAL (FIRST TO REIMBURSE FOR THE CHARGES AND SECOND TO COMPENSATE IN THE AMOUNT OF THE CHARGES), EXCEPT BY WRITTEN AGREEMENT SIGNED BY THE METAL TREATER. THE CUSTOMER, BY CONTRACTING FOR METAL TREATMENT, AGREES TO ACCEPT THE LIMITS OF LIABILITY AS EXPRESSED IN THIS STATEMENT TO THE EXCLUSION OF ANY AND ALL PROVISIONS AS TO LIABILITY ON THE CUSTOMER'S OWN INVOICES, PURCHASE ORDERS OR OTHER DOCUMENTS. IF THE CUSTOMER DESIRES HIS OWN PROVISIONS AS TO LIABILITY TO REMAIN IN FORCE AND EFFECT, THIS MUST BE AGREED TO IN WRITING, SIGNED BY AN OFFICER OF THE TREATER. IN SUCH EVENT, A DIFFERENT CHARGE FOR OUR SERVICES REFLECTING THE HIGHER RISK TO TREATER, SHALL BE DETERMINED BY THE TREATER AND CUSTOMER. THE TREATER MAKES NO EXPRESS OR IMPLIED WARRANTIES AND SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF THE FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, AS TO THE PERFORMANCE OF CAPABILITIES OF THE MATERIAL AS HEAT TREATED, OR THE HEAT TREATMENT. THE AFOREMENTIONED LIMITATION OF LIABILITY STATED ABOVE IS SPECIFICALLY IN LIEU OF ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS, AND OF ANY OTHER SUCH OBLIGATION ON THE PART OF THE TREATER. No claim for shortage in weight or count will be entertained unless presented within five (5) working days after receipt of materials by customer. No claims will be allowed for shrinkage, expansion, deformity, or rupture of material in treating or straightening, except by prior written agreement, as above, nor in any case for rupture caused by or occurring during subsequent grinding. Whenever we are given material with detailed instructions as to treatment, our responsibility shall end with the carrying out of these instructions. Failure by a customer to indicate plainly and correctly the kind of material (i.e., proper alloy designation) to be treated, shall cause an extra charge to be made to cover any additional expense incurred as a result thereof, but shall not change the limitation of liability stated above. Customer agrees there will be no liability on the treater in contract for any special, indirect or consequential damages arising whatsoever, including but not limited to persons; injury, property damage, loss of profits, loss of production, recall or any other losses, expenses or liabilities allegedly occasioned by the work performed on the part of the treater. It shall be the duty of the customer to inspect the merchandise immediately upon its return, and in any event claims must be reported prior to the time that any further processing, assembling or any other work undertaken. OUR LIABILITY TO OUR CUSTOMERS SHALL CEASE ONCE ANY FURTHER PROCESSING, ASSEMBLING OR ANY OTHER WORK HAS BEEN UNDERTAKEN ON SAID MATERIAL. No agent or representative is authorized to alter the above conditions, except by writing duly signed by an officer of treater.

KEAN SHEPHERD
QUALITY CONTROL
ATLANTIC HEAT TREATING 2001 LTD



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO040148

Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

PO No: PO040148
PO Date: 6/8/18
Due Date: 6/15/18
**Purchase Order
Revision:**
Revision Date:
Ship-To Contact: Tsimiklis, ChrisoulaPhone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	172772	C45-4-4K	C45 Load Beam Keeperless 1-Issue P/O to Groupe Altech; P/O 2-Nickel Plate .0009 - .00011, bake after plating. Electroless or electroplated is fine 3- Certificate of Conformity is required	Firmed	6/15/18	8 pcs	0 pcs	8 pcs	\$21.25/pcs	\$170.00
	172188			Firmed	6/15/18	8 pcs	0 pcs	8 pcs	\$21.25/pcs	\$170.00
Sub Total:						16	0	16	X 16	\$340.00

2	174417	C45-4-4	Load Beam 1-Issue P/O to Groupe Altech; P/O 2-Nickel Plate .0009 - .00011, bake after plating. Electroless or electroplated is fine. 3- Certificate of Conformity is required	Firmed	6/15/18	12 pcs	0 pcs	12 pcs	\$21.25/pcs	\$255.00
	172771			Firmed	6/15/18	3 pcs	0 pcs	3 pcs	\$21.25/pcs	\$63.75
Sub Total:						15	0	15	1.5 X	\$318.75

3	173601	C3-4-4K	Load Beam -Issue P/O to Groupe Altech: P/O -Nickel plate, QQ-N-290, Class 2, Grade C -Nickel Plate .0009- .0011 - Certificate of Conformity is required	Firmed	6/15/18	18 pcs	0 pcs	18 pcs	\$13.25/pcs	\$238.50
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Items										
Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
4	175891	C10-4-8	Lock Bushing 1-Issue P/O to Groupe Altech; P/O _____ 2. Nickel Plate .0004 - .0006, bake after plating. ELeetroless or electroplated is fine. 3- Certificate of Conformity is required 1-Issue P/O to ATLANTIC HEAT TREAT 2001 ; P/O _____ RC 37-40 2-Bead blast 3- Certificate of Conformity is required -Issue P/O to Groupe Altech: P/O _____ -Nickel plate, QQ-N-290, Class 2, Grade E or F -Nickel Plate .0004- .0006 -Bake after plating -Certificate of Conformity is required	Firmed	6/15/18	21 pcs	0 pcs	21 pcs	\$9.00/pcs	\$189.00
									21x	Cmp 180628
									Grand Total:	\$1,086.25
Order Notes										
Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.										

Plex 6/13/18 1:55 PM dart.tsimiklis.chrisoula

CA.



Certificat de Conformité / Certificate of Compliance

(010207-2)

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip

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Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.	Bon de commande Client Customer Purchase Order No.				
28-Jun-2018		Aman		040148				
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details Job # / Ref #	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir / Back Order
1	C45-4-4K Rev.	C45-4-4K NICKEL PLATE 0.0009-0.0011 THICK AND BAKE	E-NICKEL ALUM CH	16	16 ✓	0	0	0
2	C45-4-4 Rev.	C45-4-4 NICKEL PLATE 0.0009-0.0011 THICK AND BAKE	E-NICKEL ALUM CH	15	15 ✓	0	0	0
3	C3-4-4K Rev.	C3-4-4K NICKEL PLATE PER QQ-N-290 CLASS 2 GRADE C 0.0009-0.0011 THICK	E-NICKEL ALUM CH	18	18 ✓	0	0	0

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Notes Additionnelles / Additional Notes

Epaisseur réelle
Actual Thickness

Inspecteur Qualité
Quality Inspector

Réçu par
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.